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## THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Gruenberg, M.

Serial No.: 09/824,906

Conf. No. 9764

Filed: April 2, 2001

For: **AUTOLOGOUS IMMUNE CELL  
THERAPY: CELL COMPOSITIONS,  
METHODS AND APPLICATIONS TO  
TREATMENT OF HUMAN DISEASE**

Art Unit: 1644

Examiner: Schwadran, R.

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Date of Deposit May 17, 2002

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**INFORMATION DISCLOSURE STATEMENT  
IN ACCORDANCE WITH 37 C.F.R. § 1.97-1.98**

Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Because this Supplemental Information Disclosure Statement is filed before receipt of a First Office Action on the merits for the above-captioned application, no fee is due. If it is determined that a fee is due, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-1213.

In accordance with the duty of disclosure imposed by 37 C.F.R. §1.56 to inform the Patent Office of all references known by Applicant or Applicant's representative that may be material to the examination of the subject application, Applicant's representative hereby provides this Supplemental Information Disclosure Statement that is prepared in accordance with 37 C.F.R. §§1.97-1.98. Form PTO-1449 (3 pages) are provided herewith in connection with the above-captioned application. In accordance with 37 C.F.R. §1.98(d), copies of the references listed on the Form PTO-1449 which have been previously provided in connection with applications U.S. Serial No. 08/700,565 which is relied upon for an earlier filing date in accordance with 35 U.S.C. §120, are not provided herewith.

**U.S.S.N. 09/824,906**  
**GRUENBERG**  
**Supplemental IDS**

The documents listed on the Forms PTO-1449 and supplied herewith are in the English language. Hence, in accordance with the requirements of 37 C.F.R. §1.98, as amended effective March 16, 1992, no further explanation of the listed items is necessary.

Although these documents are made known to the Patent and Trademark Office in compliance with Applicant's duty of disclosure, such disclosure is not to be construed as an admission by Applicant or Applicant's representative that any of the references, singly or in any combination thereof, is effective as prior art against the subject application. In accordance with 37 C.F.R. §1.97(h), the filing of this Supplemental Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 C.F.R. §1.56(b) exists.

Applicant respectfully requests that the Examiner review the foregoing reference and it be made of record in the file history of the above-captioned application.

\* \* \*

Respectfully submitted,  
HELLER, EHRMAN, WHITE & McAULIFFE LLP

By: \_\_\_\_\_

Stephanie Seidman  
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FORM PTO-1449 (Modified)

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 LIST OF PATENTS AND PUBLICATIONS FOR  
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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER							DATE	NAME	CLASS	SUB CLASS	FILING DATE
	A	5	0	8	1	0	2	9	01/14/92	Zarling <i>et al.</i>	435	172.3	02/01/89
	B	5	8	1	4	2	9	5	09/29/98	Martin, Jr. <i>et al.</i>	424	1.29	07/13/94
	C	5	8	7	2	2	2	2	02/16/99	Chang	530	391.1	12/18/92
	D	6	1	2	9	9	1	6	10/10/00	Chang	424	179.1	11/25/92
	E	6	3	5	2	6	9	4	03/05/02	June <i>et al.</i>	424	93.71	03/10/95

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER							DATE	COUNTRY	CLASS	SUB CLASS	Translation Yes No	
	F	0	4	4	0	3	7	3	08/07/91	EP				
	G	9	2	0	0	0	9	2	01/09/92	PCT				
	H	9	4	1	2	1	9	6	06/09/94	PCT				

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

I	Anderson <i>et al.</i> "Crosslinking CD3 with CD2 using Sepharose-immobilized antibodies enhances T lymphocyte proliferation," <i>Cell Immunology</i> <u>115</u> : 246-256 (1988).
J	Anderson <i>et al.</i> "Cross-Linking of T3 (CD3) with T4 (CD4) enhances The proliferation of resting T lymphocytes" <i>The Journal of Immunology</i> <u>139</u> : 678-682 (1987).
K	Baroja <i>et al.</i> "Cooperation Between an Anti-T Cell (Anti-CD28) Monoclonal Antibody and Monocyte-Produced IL-6 in the Induction of T Cell Responsiveness to IL-2," <i>The Journal of Immunology</i> <u>141</u> : 1502-7 (1988).
L	Baroja <i>et al.</i> "The Anti-T Cell Monoclonal Antibody 9.3 (Anti-CD28) provides a Helper Signal and Bypasses the Need for Accessory Cells in T-Cell Activation with Immobilized Anti-CD3 and Mitogens," <i>Cellular Immunology</i> <u>120</u> : 205-217 (1989).
M	Borst <i>et al.</i> "The $\delta$ - and $\epsilon$ - chains of the human T3/T-cell receptor complex are distinct polypeptides," <i>Nature</i> <u>312</u> : 455-458 (1986).
N	Ceuppens, J.L. and M.L. Baroja, "Monoclonal Antibodies to the CD5 Antigen Can Provide the Necessary Second Signal for Activation of Isolated Resting T Cells by Solid-Phase-Bound OKT3," <i>The Journal of Immunology</i> <u>137</u> : 1816-1821 (1986).

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O	Damle <i>et al.</i> "Differential Costimulatory Effects of Adhesion Molecules B7, ICAM-1, LFA-3, and VCAM-1 On Resting and Antigen-Primed CD4+ T Lymphocytes," <i>The Journal of Immunology</i> <u>148</u> : 1985-1992 (1992).
P	Damle <i>et al.</i> "Stimulation Via the CD3 and CD28 Molecules Induces responsiveness To IL-4 in CD4+CD29+CD45R- Memory T Lymphocytes," <i>The Journal of Immunology</i> <u>143</u> : 1761-7 (1989)
Q	Ding, L. <i>et al.</i> , "Activation of CD4+ T cells by delivery of the B7 costimulatory signal on bystander antigen-presenting cells (trans-costimulation)," <i>European J. of Immunology</i> <u>24</u> : 859-866 (1994).
R	Hawke <i>et al.</i> "Stimulation of human T cells by sparse antigen captured on immunomagnetic particles " <i>J. of Immunol. Methods</i> <u>155</u> : 41-48 (1992).
S	Karawajew <i>et al.</i> "A simple and sensitive method to study effects mediated by soluble lymphokines as demonstrated by the interaction of CD4+ and CD8+ cell subsets during T cell activation," <i>The Journal of Immunological Methods</i> <u>173</u> : 27-31 (1994).
T	Kuiper <i>et al.</i> "Differences in responsiveness to CD3 stimulation between naive and memory CD4+ T cells cannot be overcome by CD28 costimulation," <i>European J. of Immunology</i> <u>24</u> (9): 1956-60 (1994).
U	Ledbetter <i>et al.</i> "Antibody Binding to CD5 (Tp67) and Tp44 Cell Surface Molecules: Effects on Cyclic Nucleotides, Cytoplasmic Free Calcium, and cAMP-Mediated Suppression," <i>The Journal of Immunology</i> <u>137</u> (10): 3299-3305 (1986).
V	Lum <i>et al.</i> "Coactivation with anti-CD28 monoclonal antibody enhances anti-CD3 monoclonal antibody-induced proliferation and IL-2 synthesis in T cells from autologous bone marrow transplant recipients," <i>Bone Marrow Transplantation</i> <u>12</u> : 565-571 (1993).
W	Nijhuis <i>et al.</i> "Activation and expansion of tumour-infiltrating lymphocytes by anti-CD3 and anti-CD28 monoclonal antibodies," <i>Cancer Immunol. Immunotherapy</i> <u>32</u> : 245-50 (1990).
X	Pai <i>et al.</i> "Cross-linking CD28 leads to activation of 70-kDa S6 kinase," <i>European Journal of Immunology</i> <u>24</u> (10): 2364-2368 (1994).
Y	Scouten <i>et al.</i> "Reversible Immobilization of Antibodies on Magnetic Beads," <i>Analytical Biochem.</i> <u>205</u> : 313-318 (1992).
Z	Urdahl <i>et al.</i> "Accessory Cell-derived Costimulatory Signals Regulate T Cell Proliferation," <i>Ann. N.Y. Acad. Sci.</i> <u>636</u> : 33-42 (1991).
AA	Van Wauwe <i>et al.</i> "OKT3: A Monoclonal Anti-Human T Lymphocyte Antibody With Potent Mitogenic Properties," <i>The Journal of Immunology</i> <u>124</u> (6): 2708-2713 (1980).

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BB	Von Fliedner <i>et al.</i> "Production of Tumor Necrosis Factor- $\alpha$ by Naive Or Memory T Lymphocytes Activated via CD28," <i>Cellular Immunology</i> <u>139</u> : 198-207 (1992).
CC	Weber <i>et al.</i> "Activation Through CD3 Molecule Leads to Clonal Expansion of All Human Peripheral Blood T Lymphocytes: Functional Analysis of Clonally Expanded Cells, <i>The Journal of Immunology</i> <u>135</u> (4): 2337-2342 (1985).

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